December 22, 2014

Mr. James Hitzeroth
Environmental Manager
Republic Services, Inc.
26W580 Schick Road
Hanover Park, Illinois 60103

Subject: **Zion Surface Emissions Monitoring Report – Fourth Quarter 2014**
Zion Landfill Site 1 (Phases A and B) and Old Site 2
Zion, Illinois
CEC Project 140-610

Dear Mr. Hitzeroth:

Civil & Environmental Consultants, Inc. (CEC) is pleased to present the information pertaining to the Fourth Quarter 2014 surface emissions monitoring (SEM) conducted at the Zion Site 1 Phase A and B and Old Site 2 Landfill on December 18, 2014. The monitoring event was conducted in accordance with (1) regulations set forth in the New Source Performance Standard (NSPS), 40 CFR 60.755 (c) and (d); and (2) 40 CFR 60, Appendix A Method 21, promulgated by the United States Environmental Protection Agency (USEPA).

A Photovac Micro flame ionization detector I/S (FID) was used to perform the emissions monitoring. The FID was calibrated prior to use, meeting Method 21 compliance requirements. Calibration logs were completed by the field technician performing the work, and are included in Attachment A.

The SEM was started by the CEC technician at 7:45 AM and was concluded at 10:40 AM. The sky was partly cloudy with East winds at approximately 8 mph. The high temperature for the location was 70 degrees Fahrenheit. There were no readings greater than 500 ppm above background measurements detected during this monitoring event.

If you have questions or need clarifications, please call Greg Komperda at (630) 432-0999.

Very truly yours,
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Gregory Komperda
Field Services Manager

Beau Harp, P.G.
Principal

Attachment A: Fourth Quarter 2014 SEM Summary

P:\2014\140-610\-Final Documents\SEM Reporting\4th Quarter 2014\140-610_Zion 4th Quarter 2014 SEM Report.docx

ATTACHMENT A

FOURTH QUARTER 2014 SEM SUMMARY

CALIBRATION PRECISION TEST RECORD

LANDFILL NAME: Zion DATE: 12/18/2014

EXPIRATION DATE (3 MOS.): _____

TIME: 8:15 AM

INSTRUMENT MAKE: PHOTO VAC MODEL: Micro FID S/N: C2WD307

MEASUREMENT #1:

Meter Reading for Zero Air: 0.0 ppm (1)

Meter Reading for Calibration Gas: 499.5 ppm (2)

MEASUREMENT #2:

Meter Reading for Zero Air: 0.0 ppm (3)

Meter Reading for Calibration Gas: 500.0 ppm (4)

MEASUREMENT #3:

Meter Reading for Zero Air: 0.0 ppm (5)

Meter Reading for Calibration Gas: 500.0 ppm (6)

CALCULATE PRECISION:

$$\frac{[500 - (2)] + [500 - (4)] + [500 - (6)]}{3} \times \frac{1}{500} \times \frac{100}{1}$$

= 0.03 % (must be less than 10%)

PERFORMED BY: Jason Vesper

RESPONSE TIME TEST RECORD

LANDFILL NAME: Zion

DATE: 12/18/2014

TIME: 8:25 AM

INSTRUMENT MAKE: PHOTO VAC MODEL: Micro FID S/N: C2WD307

MEASUREMENT #1:

Stabilized Reading Using Calibration Gas: 489.1 ppm

90% of the Stabilized Reading: 440.2 ppm

Time to Reach 90% of Stabilized reading
After switching from Zero Air to
Calibration Gas 4 seconds (1)

MEASUREMENT #2:

Stabilized Reading Using Calibration Gas: 492.1 ppm

90% of the Stabilized Reading: 442.9 ppm

Time to Reach 90% of Stabilized Reading
After switching from Zero Air to
Calibration Gas 3 seconds (2)

MEASUREMENT #3:

Stabilized Reading Using Calibration Gas: 491.9 ppm

90% of the Stabilized Reading: 442.7 ppm

Time to Reach 90% of Stabilized Reading
After switching from Zero Air to
Calibration Gas 3 seconds (3)

CALCULATE RESPONSE TIME:

$$\frac{(1) + (2) + (3)}{3}$$

= 3.3 SECONDS (MUST BE LESS THAN 30 SECONDS

PERFORMED BY: Jason Vesper

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

LANDFILL NAME: Zion

INSTRUMENT MAKE: PHOTO VA(MODEL: Micro FID S/N: C2WD307

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.

2. Introduce the calibration gas into the probe.
   Stable reading = 500.0 ppm

3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 0.0 ppm (1)

2. Downwind Reading (highest in 30 seconds): 0.0 ppm (2)

Calculate Background Value:

$$\frac{(1) + (2)}{2}$$

Background = 0.0 ppm

PERFORMED BY: Jason Vesper TIME: 8:35 AM

DATE: 12/18/2014